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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/605,246	09/17/2003	James Bumgardner	UV-438 CIP	3327

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EXAMINER

DANG, HUNG Q

ART UNIT	PAPER NUMBER
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2621

MAIL DATE	DELIVERY MODE
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10/28/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/605,246	BUMGARDNER ET AL.	
	Examiner	Art Unit	
	Hung Q. Dang	2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 02 October 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 34-69 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 34-69 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/02/2008 has been entered.

Information Disclosure Statement

The information disclosure statement filed 02/26/2008 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered.

The designated reference numbers cannot locate the foreign documents.

Response to Arguments

Applicant's arguments filed 10/02/2008 have been fully considered but they are not persuasive.

On page 18, Applicant argues that Ohno does not show or suggest generating a plurality of solutions to a tuner conflict. In response, the Examiner respectfully disagrees. In Ohno, a network of TV broadcast receiving apparatuses, each of which includes a tuner shown in Fig. 1 is disclosed (Fig. 5). Each of these TV broadcast

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receiving apparatuses is referred to by Ohno simply as a tuner, e.g., "self-tuner" and "remote tuners". The self-tuner and the remote tuners have basically identical components, except for the tuner units, each of which could have slightly or different bandwidth characteristics (see [0044]). Although referred to as self-tuner, this self-tuner could be a remote tuner because all tuners have the same processing as described ([0064]). In Ohno, processing in case of a tuner conflict is described with respect to the self-tuner. It is understood that this is also applied to other tuners in the network. Having said that, the Examiner interprets a tuner conflict, in its broadest meaning, to comprise all recording, programming, or bandwidth conflicts occurring at a tuner node.

So in [0071]-[0080], Ohno describes a situation where channels 1-4 are multiplexed on RF1 and channels 5-8 are multiplexed on RF2 and the self-tuner is busy with channels 1 and 2 while its user likes to switch to channel 5 multiplexed on RF2 for recording. In this case, the self-tuner analyzes some management data to get a remote tuner, which can be tuned to receive that channel 5 program data to transfer the data to the self-tuner to be recorded. The description corresponds to one solution.

One of ordinary skill in the art would recognize that, according to the teachings of Ohno, now if the self-tuner is still busy with channels 1 and 2 and the user wants to record channel 6, which is multiplexed on RF2. The same process will take place. And the self-tuner, depending on the status of the network and the status of each of the tuner node, can get a different remote tuner to receive and transfer the data. And that corresponds to another solution. The same process can be repeated to yield different solutions depending on the status of the network and the tuner nodes.

For that reason, the Examiner believes Ohno discloses "generating a plurality of solutions to the tuner conflict" depending on user's inputs at the nodes and the status of the network at the time.

However, since the feature has been amended to be "generate a plurality of solutions to the tuner conflict without further action by a user," a new ground of rejection will be applied regarding to this newly amended feature.

On page, 18, Applicant argues that Ismail does not disclose the feature of "each of plurality of solutions corresponding to a storage schedule that comprises a subset of the shows in the maintained list." In response, the Examiner respectfully disagrees.

The claims recite, "generate a plurality of solutions to the tuner conflict without further action by a user, each solution corresponding to a storage schedule that comprises a subset of the shows in the maintained list." The combination of Ohno and Ismail discloses this feature as follows.

First of all, in [0054] and Fig. 2, Ismail discloses a recording manager that maintains a list of all programs at X, or within time period X, to be recorded in accordance with the ratings, which assign priorities to each program. The programs having the highest rating are given highest preference for recordation and the programs having lowest rating are given lowest preference for recordation. Depending on a chosen preference, a particular order of recordation is established and indeed is a solution that includes a subset of the shows. For example, also in [0054], Ismail states, "recordation is subject to storage capacity constraints. Specifically, if the highest rated program is one-hour long, and only thirty minutes of recording space is available on

storage devices, then the one-hour program is skipped and the highest rated thirty-minute program is recorded.”. That description illustrates a solution of storage when at least two of the shows are scheduled for storage on the storage device at the same time.

In other words, for example, given program A and program B to be recorded at the same time X, according to the teachings of Ismail, there are at least four solutions: (1) record program A first then record program B, or (2) record program B first then record program A, or (3) record only A, or (4) record only B.

Depending on some conditions, one solution is selected as follows. If there is no storage constraint, either solution (1) or solution (2) is selected depending on the preference ratings of the two programs. If there is storage constraint that only one program can be recorded, then if program A has higher preference ratings and fits into the storage constraint, select solution (3). If program A has higher preference ratings but does not fit into the storage constraint, then select solution (4).

On page 18, Applicant also argues that, these “are parts of the same single solution.”

In response, the Examiner respectfully disagrees. Parts of the same single solution must be performed in series or sequentially to achieve a goal. For example, to record program A, first program A must be inputted. It is then transferred to a buffer of disk drive. Finally, the data are read out from the buffer and recorded onto the surface of the disk. Those are parts of the same solution to the problem of recording program A

onto a disk. Because they are parts of the same solution, if the solution is selected, all of these steps must be performed in that order.

In contrast, each of multiple solutions to the same problem gives an alternative path of proceeding. And only one path is selected to be performed according to some criteria. The teachings of Ismail absolutely fall into this category.

The scenarios described by Ismail above also illustrate the solutions are generated without action by a user.

For that reason, Ismail clearly discloses the features of "maintaining a list of shows when at least two of the shows are scheduled for storage on the storage device at the same time" and "each of plurality of solutions corresponding to a storage schedule that comprises a subset of the shows in the maintained list."

On page 19, regarding new claims 67-69, Applicant argues that Ohno does not suggest "initiating the storage of shows using another available tuner in a network of tuners." In response the Examiner respectfully disagrees. In [0078], Ohno discloses initiating another available tuner in a network of tuners to receive the program data and transfer it to the self-tuner. The program data are processed and finally recorded as described in [0079].

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 34-69 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohno et al. (US 2001/0028782) and Ismail et al. (US 2003/0118323).

Regarding claim 34, Ohno et al. disclose a video recorder (Fig. 1; Fig. 5) configured to schedule the storage of shows ([0071]), the video recorder comprising: at least one television tuner that is in a network of tuners (Fig. 1; Fig. 5; [0030]; [0044]), the at least one television tuner being configured to receive a plurality of shows ([0071]); a storage device coupled to the at least one television tuner, the storage device being configured to store a plurality of the received shows ("Storage 110" of Fig. 1; [0040]; [0071]); and a conflict manager configured to: maintain a plurality of shows that are scheduled for storage on the storage device using the at least one tuner ([0071]); determine that there is a tuner conflict based on the maintained shows ([0074]); determine the availability of at least one other tuner in the network of tuners ([0076]; [0078]); generating a solution to the tuner conflict without further action by a user ([0071]-[0080]); and initiate the storage of the show according to storage schedule corresponding to one of the plurality of solutions using the at least one other tuner in the network of tuners ([0079]).

However, Ohno et al. do not disclose maintaining a list of shows, in which at least two of the shows are scheduled for storage on the storage device using the at least one tuner at the same time, and each solution corresponding to a storage schedule that comprises a subset of the shows in the maintained list.

Ismail et al. disclose maintaining a list of shows, in which at least two of the shows are scheduled for storage on the storage device using the at least one tuner at

the same time ([0054]; [0055]; Fig. 2; also see “Response to Arguments” above); and each of plurality of solutions without further action by a user corresponding to a storage schedule that comprises a subset of the shows in the maintained list ([0054]; [0055]; and Fig. 2; also see “Response to Arguments” above).

One of ordinary skill in the art at the time the invention was made would have been motivated to incorporate the show list disclosed by Ismail into the video recorder disclosed by Ohno to give users flexibility on recording of programs. For example, the list of programs to be recorded can be automatically collected using user's preference data or by users' requests or using storage capacity constraints. The incorporated feature would make the video recorder more robust and well adaptive to users' taste and network environments.

Regarding claim 35, Ohno et al. also disclose the conflict manager is further configured to determine an availability of at least one other tuner in the network of tuners by querying the network for another available tuner ([0074]-[0078]).

Regarding claim 36, Ismail et al. also disclose receiving a request to store a further show to the storage device ([0055]) and assigning a priority to the further show ([0055]).

Regarding claim 37, Ismail et al. also disclose evaluating the plurality of solutions by comparing the assigned priority of the further show to priorities associated with the shows in the plurality of solutions ([0054]; [0055]).

Regarding claim 38, Ismail et al. also disclose eliminating at least one solution if each of the shows in the storage schedule corresponding to the at least one solution has a lower priority than the priority assigned to the further show ([0054]; [0055]).

Regarding claim 39, Ismail et al. also disclose cancelling the recording of each of the shows in the storage schedule corresponding to the at least one eliminated solution ([0054]; [0055]).

Regarding claim 40, Ismail et al. also disclose providing the user with the opportunity to cancel at least one show from one of the plurality of solutions ([0054]; [0055]).

Regarding claim 41, Ismail et al. also disclose searching through an interactive program guide to determine if one of the shows in the maintained list is available to record at a later time ([0019]; [0026]; [0038]).

Regarding claim 42, Ismail et al. also disclose rescheduling the recording of the program to the later time based on the determination ([0019]; [0026]).

Claim 43 is rejected for the same reason as discussed in claim 34 above.

Claim 44 is rejected for the same reason as discussed in claim 35 above.

Claim 45 is rejected for the same reason as discussed in claim 36 above.

Claim 46 is rejected for the same reason as discussed in claim 37 above.

Claim 47 is rejected for the same reason as discussed in claim 38 above.

Claim 48 is rejected for the same reason as discussed in claim 39 above.

Claim 49 is rejected for the same reason as discussed in claim 40 above.

Regarding claim 50, Ismail et al. also disclose the priority associated with one show in the maintained list of shows is established by comparing the length of the one show to each of the other shows in the maintained list ([0054]).

Regarding claim 51, Ismail et al. also disclose the priority associated with one show in the maintained list of shows is established based on whether the show was scheduled for recording manually or automatically ([0055]).

Regarding claim 52, Ismail et al. also disclose determining if there is a conflict between a plurality of series ([0019]; [0054]).

Regarding claim 53, Ismail et al. also disclose eliminating at least one solution if at least one show in the storage schedule corresponding to the at least one solution is part of the series and is a repeat ([0019]).

Regarding claim 54, Ismail et al. also disclose the priority associated with one show in the maintained list of shows is established based on whether the one show is currently being recorded to the storage device ([0054]; [0055]; it is noted that, according to the teaching of Ismail et al., the show currently being recorded has the highest priority).

Claim 55 is rejected for the same reason as discussed in claim 34 above.

Claim 56 is rejected for the same reason as discussed in claim 35 above.

Claim 57 is rejected for the same reason as discussed in claim 36 above.

Claim 58 is rejected for the same reason as discussed in claim 37 above.

Claim 59 is rejected for the same reason as discussed in claim 38 above.

Claim 60 is rejected for the same reason as discussed in claim 39 above.

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Claim 61 is rejected for the same reason as discussed in claim 40 above.

Claim 62 is rejected for the same reason as discussed in claim 50 above.

Claim 63 is rejected for the same reason as discussed in claim 51 above.

Claim 64 is rejected for the same reason as discussed in claim 52 above.

Claim 65 is rejected for the same reason as discussed in claim 53 above.

Claim 66 is rejected for the same reason as discussed in claim 54 above.

Regarding claim 67, Ohno et al. also disclose the conflict manager is further configured to initiate the storage of shows using the at least one other tuner in the network of tuners according to the storage schedule ([0078]; [0079]).

Claim 68 is rejected for the same reason as discussed in claim 67 above.

Claim 69 is rejected for the same reason as discussed in claim 67 above.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hung Q. Dang whose telephone number is (571)270-1116. The examiner can normally be reached on IFT.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, THAI Q. TRAN can be reached on 571-272-7382. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Hung Q Dang/
Examiner, Art Unit 2621

/Thai Tran/
Supervisory Patent Examiner, Art Unit 2621